5th Grade Parent Information

April 13-24

- Recommended daily math practice time: 30 minutes
- There are 16 "practice" pages taken from the iReady At Home Activity Packet – Recommendation is to work 15-20 problems per day from pages of your child's choice. However, the goal is practice and remembering how to work problems correctly. Adjust the number of problems based on how long it takes your child to complete.
- There are 5 "Activity" pages – Recommendation is 2-3 "Activities" per week for 10-15 minutes each activity. These activities can be repeated for extra practice. If cutting pieces out is needed for an activity, your child may need to re-create on their own paper depending on how it prints.
- Answer keys are at the end of the document for pages that can't be checked easily with a calculator.

Additional Ideas that can be practiced daily or every other day:

- Read and write decimals to thousandths using standard form, word form, and expanded form.
  - Example: 347.392 is written as 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000) and is read three hundred forty seven and three hundred ninety two thousandths.
- Multiply multi-digit whole numbers (up to three-digit by four-digit factors)
  - Examples: 6451x257; 789x316; 2345x9; etc.
- Add, subtract, multiply, and divide decimals to hundredths.
- Add and subtract fractions with unlike denominators.
- Continue practicing multiplication and division facts up to 12x12 (or higher if desired). Your child could create their own flash cards with a fact and a picture/array to illustrate. Another option is to write the fact families for the facts. Example: 5 x 2 = 10; 2 x 5 = 10; 10 ÷ 2 = 5; 10 ÷ 5 = 2

Understanding Powers of 10

Name: _____

Multiply or divide.

1. $6 \div 10$ _____
2. $0.6 \div 10$ _____
3. $6 \div 10^2$ _____
4. $0.6 \div 10^2$ _____
5. $6 \div 10^3$ _____
6. $60 \div 10^3$ _____
7. 0.3×10 _____
8. 0.3×10^2 _____
9. 0.3×10^3 _____
10. 0.03×10^2 _____
11. 0.003×10^2 _____
12. 0.03×10^3 _____
13. $72 \div 10$ _____
14. 0.72×10^2 _____
15. $7{,}200 \div 10^3$ _____
16. $20 \div 10^2$ _____
17. 0.9×10^3 _____
18. 0.001×10^2 _____
19. $54 \div 10$ _____
20. $150 \div 10^3$ _____
21. 0.46×10^3 _____

22. What strategies did you use to solve the problems? Explain.

Writing a Decimal in Standard Form

Name: _____

What decimal represents each number?

1 one and six tenths

_____

2 eight and eleven hundredths

_____

3 $6 \times 1 + 5 \times \frac{1}{10}$

_____

4 thirteen and thirteen thousandths

_____

5 $2 \times 10 + 7 \times \frac{1}{10} + 3 \times \frac{1}{100}$

_____

6 $4 \times 1 + 1 \times \frac{1}{100} + 9 \times \frac{1}{1{,}000}$

_____

7 five hundred twelve thousandths

_____

8 $8 \times 100 + 2 \times \frac{1}{10} + 8 \times \frac{1}{1{,}000}$

_____

9 $2 \times 1 + 4 \times \frac{1}{100}$

_____

10 forty-two and forty-one hundredths

_____

11 $7 \times 100 + 2 \times 10 + 3 \times 1 + 6 \times \frac{1}{10}$

_____

12 twelve and sixty-eight thousandths

_____

13 $3 \times 1{,}000 + 6 \times 100 + 3 \times 10 + 7 \times \frac{1}{10} + 2 \times \frac{1}{100} + 8 \times \frac{1}{1{,}000}$

_____

14 nine hundred fifty-six and four hundred twenty-seven thousandths

_____

15 How was writing decimals for numbers in word form different from numbers in expanded form?

Comparing Decimals

Name: _____

Write the symbol <, =, or > in each comparison statement.

1. 0.02 _____ 0.002
2. 0.05 _____ 0.5
3. 0.74 _____ 0.84
4. 0.74 _____ 0.084
5. 1.2 _____ 1.25
6. 5.130 _____ 5.13
7. 3.201 _____ 3.099
8. 0.159 _____ 1.590
9. 8.269 _____ 8.268
10. 4.60 _____ 4.060
11. 302.026 _____ 300.226
12. 0.237 _____ 0.223
13. 3.033 _____ 3.303
14. 9.074 _____ 9.47
15. 6.129 _____ 6.19
16. 567.45 _____ 564.75
17. 78.967 _____ 78.957
18. 5.346 _____ 5.4
19. 12.112 _____ 12.121
20. 26.2 _____ 26.200
21. 100.32 _____ 100.232

22. What strategies did you use to solve the problems? Explain.

Multiplying Multi-Digit Whole Numbers

Name: _____

Estimate. Circle all the problems with products between 3,000 and 9,000. Then find the exact products of only the problems you circled.

1 132 × 34

2 247 × 15

3 145 × 23

4 308 × 12

5 158 × 41

6 364 × 32

7 400 × 29

8 254 × 17

9 187 × 42

10 216 × 12

11 323 × 18

12 194 × 26

13 317 × 14

14 385 × 31

15 285 × 27

16 What strategies did you use to solve the problems? Explain.

Multiplying with the Standard Algorithm

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 580 × 30

2 3,104 × 18

3 1,482 × 38

4 1,085 × 17

5 1,236 × 55

6 1,625 × 18

7 2,105 × 13

8 1,788 × 15

9 2,500 × 19

10 648 × 32

11 2,409 × 23

12 306 × 62

13 2,417 × 24

14 650 × 35

15 962 × 44

Answers

20,736	17,400	27,365	47,500	55,872
18,972	18,445	26,820	67,980	56,316
22,750	29,250	55,407	42,328	58,008

Using Area Models and Partial Quotients to Divide

Name: _____

Estimate. Circle all the problems that will have quotients greater than 30. Then find the exact quotients of only the problems you circled.

1 540 ÷ 12

_____

2 798 ÷ 38

_____

3 429 ÷ 11

_____

4 931 ÷ 19

_____

5 925 ÷ 25

_____

6 390 ÷ 15

_____

7 1,071 ÷ 51

_____

8 1,326 ÷ 13

_____

9 1,856 ÷ 32

_____

10 2,952 ÷ 72

_____

11 1,869 ÷ 89

_____

12 1,798 ÷ 29

_____

13 Select a problem you did not circle. Describe two different ways you could use estimation to tell the quotient is not greater than 30.

Adding Decimals

Name: _____

Circle all the problems with sums less than 5.
Then find the exact sums of only the problems you circled.

1 0.24 + 4.25

_____

2 4.8 + 0.16

_____

3 2.31 + 2.075

_____

4 2.31 + 2.7

_____

5 0.909 + 4.09

_____

6 3.99 + 1.109

_____

7 2.675 + 2.325

_____

8 3.775 + 0.225

_____

9 2.06 + 2.933

_____

10 2.6 + 2.933

_____

11 1.809 + 3.091

_____

12 3.01 + 1.991

_____

13 1.83 + 3.1 + 0.1

_____

14 0.012 + 3.79 + 1.101

_____

15 2.6 + 2.04 + 0.099

_____

16 What strategies did you use to solve the problems?

Subtracting Decimals to Hundredths

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 7.5 − 1.2

_____

2 10.75 − 4.13

_____

3 20.2 − 14.8

_____

4 6.12 − 0.7

_____

5 41.5 − 33.25

_____

6 15.9 − 8.92

_____

7 105.53 − 99.28

_____

8 9.46 − 3.68

_____

9 74 − 65.9

_____

10 5.05 − 0.56

_____

11 31.27 − 23.67

_____

12 256.4 − 248.38

_____

13 12 − 4.39

_____

14 1,280.01 − 1,272.77

_____

15 500.2 − 494.94

_____

Answers

6.25	5.26	6.62	8.1	7.6
4.49	8.25	7.61	6.98	5.42
7.24	5.4	8.02	5.78	6.3

Multiplying a Decimal by a Whole Number

Name: _____

Multiply.

1. 3×0.2 _____
2. 3×0.03 _____
3. 3×0.23 _____
4. 4×0.08 _____
5. 4×1.1 _____
6. 4×1.18 _____
7. 6×0.07 _____
8. 6×1.1 _____
9. 6×1.17 _____
10. 21×0.05 _____
11. 21×1.05 _____
12. 21×2.05 _____
13. 9×3.25 _____
14. 5×0.87 _____
15. 11×3.68 _____
16. 16×6.4 _____
17. 7×6.89 _____
18. 32×5.12 _____

19. How did you know where to put the decimal point in problem 6?

Multiplying Decimals Less Than 1

Name: _____

Multiply.

1. 0.5×3 _____
2. 0.5×0.3 _____
3. 0.5×0.03 _____
4. 6×0.2 _____
5. 0.6×0.2 _____
6. 0.06×0.2 _____
7. 0.8×0.1 _____
8. 0.8×0.2 _____
9. 0.8×0.3 _____
10. 0.4×0.02 _____
11. 0.4×0.04 _____
12. 0.4×0.12 _____
13. 0.3×0.4 _____
14. 0.6×0.4 _____
15. 0.6×0.8 _____
16. 0.01×0.5 _____
17. 0.05×0.5 _____
18. 0.25×0.5 _____

19. Describe a pattern you noticed when you were completing the problem set.

Multiplying with Decimals Greater Than 1

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 0.3×1.2 _____

2 1.2×0.4 _____

3 1.2×1.1 _____

4 0.3×12.1 _____

5 4.4×1.1 _____

6 0.02×1.8 _____

7 7.1×5.1 _____

8 6.6×0.02 _____

9 2.4×4.8 _____

10 9.2×5.24 _____

11 1.2×1.24 _____

12 8.4×6.2 _____

13 4.2×3.21 _____

14 4.25×8.5 _____

15 1.9×2.78 _____

Answers

0.132	1.32	13.482	1.488	48.208
4.84	0.48	52.08	11.52	5.282
36.125	0.036	0.36	3.63	36.21

Dividing by Hundredths

Name: _____

Divide.

1. $1 \div 0.25$ _____
2. $4 \div 0.25$ _____
3. $3.75 \div 0.25$ _____
4. $6.5 \div 0.25$ _____
5. $1.8 \div 9$ _____
6. $1.8 \div 0.9$ _____
7. $1.8 \div 0.09$ _____
8. $225 \div 75$ _____
9. $22.5 \div 7.5$ _____
10. $2.25 \div 0.75$ _____
11. $0.36 \div 0.06$ _____
12. $6.36 \div 0.06$ _____
13. $36.36 \div 0.06$ _____
14. $9 \div 2.25$ _____
15. $13.5 \div 2.25$ _____

16. Describe a pattern you noticed when you were completing the problem set.

Adding Fractions with Unlike Denominators

Name: _____

Add.

1 $\frac{1}{2} + \frac{1}{4}$

_____

2 $\frac{1}{2} + \frac{3}{8}$

_____

3 $\frac{1}{2} + \frac{1}{3}$

_____

4 $\frac{1}{3} + \frac{1}{4}$

_____

5 $\frac{5}{6} + \frac{1}{12}$

_____

6 $\frac{1}{3} + \frac{2}{5}$

_____

7 $\frac{5}{6} + \frac{2}{3}$

_____

8 $\frac{3}{4} + \frac{5}{6}$

_____

9 $\frac{7}{9} + \frac{1}{6}$

_____

10 $\frac{7}{8} + \frac{2}{3}$

_____

11 $\frac{3}{2} + \frac{3}{5}$

_____

12 $\frac{9}{8} + \frac{5}{6}$

_____

13 What is a different common denominator you could use in problem 2? Describe how you would add the fractions using this different common denominator. Is the result equivalent to the sum found in problem 2?

Adding with Mixed Numbers

Name: _____

Add.

1. $4\frac{7}{8} + \frac{1}{8}$ _____

2. $4\frac{7}{8} + \frac{1}{4}$ _____

3. $4\frac{7}{8} + \frac{1}{2}$ _____

4. $2\frac{3}{4} + \frac{1}{3}$ _____

5. $2\frac{3}{4} + \frac{2}{3}$ _____

6. $2\frac{3}{4} + \frac{5}{6}$ _____

7. $1\frac{2}{5} + 1\frac{1}{2}$ _____

8. $2\frac{4}{5} + 3\frac{1}{2}$ _____

9. $3\frac{2}{3} + 3\frac{2}{5}$ _____

10. $4\frac{5}{8} + 2\frac{2}{3}$ _____

11. $5\frac{3}{4} + 2\frac{3}{5}$ _____

12. $3\frac{5}{6} + 2\frac{7}{8}$ _____

13. What strategy did you use to solve problem 3? Describe each step.

Subtracting Fractions with Unlike Denominators

Name: _____

Subtract.

1 $\frac{1}{2} - \frac{1}{4}$

_____

2 $\frac{1}{2} - \frac{3}{8}$

_____

3 $\frac{1}{2} - \frac{1}{3}$

_____

4 $\frac{1}{3} - \frac{1}{4}$

_____

5 $\frac{5}{6} - \frac{5}{12}$

_____

6 $\frac{3}{4} - \frac{1}{6}$

_____

7 $\frac{7}{8} - \frac{3}{4}$

_____

8 $\frac{1}{2} - \frac{2}{5}$

_____

9 $\frac{3}{4} - \frac{3}{5}$

_____

10 $\frac{2}{3} - \frac{3}{5}$

_____

11 $\frac{5}{6} - \frac{3}{8}$

_____

12 $\frac{7}{8} - \frac{2}{3}$

_____

13 How could you check your work in problem 4? Describe each step.

Subtracting with Mixed Numbers

Name: _____

Subtract.

1 $2\frac{1}{8} - \frac{1}{4}$

_____

2 $2\frac{1}{8} - \frac{1}{2}$

_____

3 $2\frac{1}{8} - \frac{3}{4}$

_____

4 $2\frac{1}{2} - \frac{2}{3}$

_____

5 $2\frac{1}{4} - 1\frac{1}{3}$

_____

6 $3\frac{1}{6} - 1\frac{3}{4}$

_____

7 $7\frac{2}{5} - 3\frac{1}{2}$

_____

8 $5\frac{3}{8} - 4\frac{1}{6}$

_____

9 $8\frac{2}{3} - 3\frac{4}{5}$

_____

10 $6\frac{2}{5} - 3\frac{3}{4}$

_____

11 $9\frac{3}{8} - 3\frac{2}{3}$

_____

12 $14\frac{1}{8} - 9\frac{5}{6}$

_____

13 What pattern did you notice in problems 1 through 3? Explain how this helped you subtract.

Division with Area Models

What You Need

- number cube
- Recording Sheet

Check Understanding

Use an area model to show the quotient.
954 ÷ 18

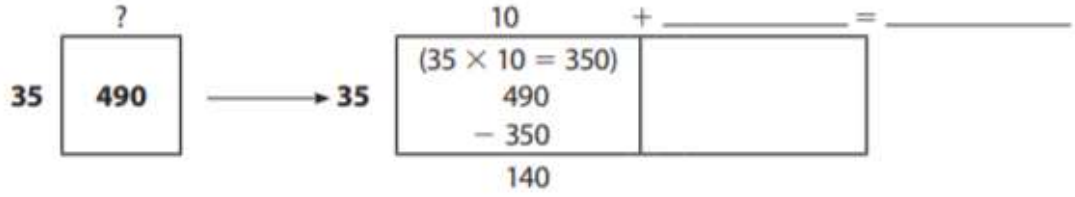
What You Do

1. Take turns. Toss the number cube. Read the problem next to the number in the table. If the problem has already been solved, roll again.
2. On the **Recording Sheet,** draw an area model to solve the division problem.
3. Explain why your area model is correct. Your partner checks your work.
4. The round is over once each partner has solved a problem. The partner with the greater quotient scores 1 point.
5. Play for three rounds. The player with the most points wins the game.

Toss	Problem
1	168 ÷ 14
2	575 ÷ 25
3	952 ÷ 28
4	792 ÷ 12
5	825 ÷ 15
6	768 ÷ 16

Go Further!

A student started the following area model for the problem 490 ÷ 35.
Complete the area model to solve the problem.



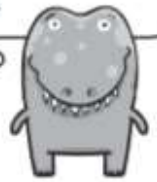
Partner A _____

Partner B _____

Division with Area Models

Round	Partner A	Partner B
1		
2		
3		

276 ÷ 12 = ? It helps to estimate first.
Think: 12 × 2 = 24, so 12 x 20 = 240.
Since 240 < 276, I can start with 20.



Center Activity 5.18 ★★

Solve Area Problems with Division

What You Need

- Recording Sheet

Check Understanding

What is the second side length of this rectangle? Show your work.

Area: 1,575 square units

Side 1: 35 units

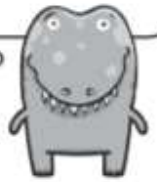
What You Do

1. Take turns. Choose a problem on the **Recording Sheet.** The area of a rectangle and one side length are given.
2. Write a division equation to find the missing side length of the rectangle.
3. Solve the division equation using any method.
4. Your partner checks your answer and draws the rectangle described on the grid.
5. Repeat until each partner has had two turns.

I know that division and multiplication are inverse operations. For any rectangle,

area ÷ side length = side length and

side length × side length = area



Go Further!

A rectangle has an area of 480 square units. Work with your partner to come up with the dimensions of the rectangle if the side length is 12 units, 15 units, or 16 units. Draw a sketch of each rectangle.

Partner A _____

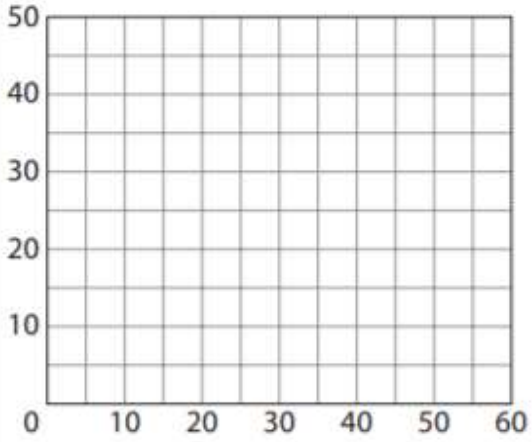
Partner B _____

Solve Area Problems with Division

Area of a rectangle: 1,375 square units

Side: 25 units Side: _____ units

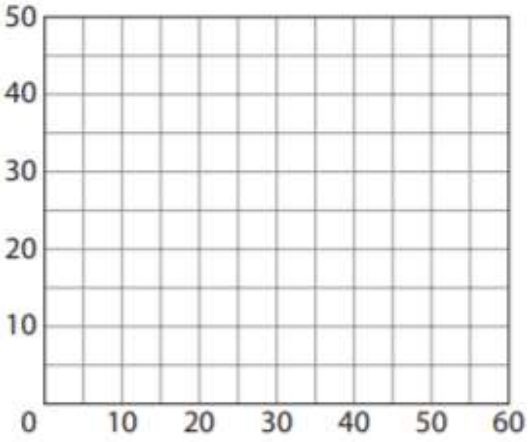
_____ ÷ _____ = _____



Area of a rectangle: 1,400 square units

Side: 40 units Side: _____ units

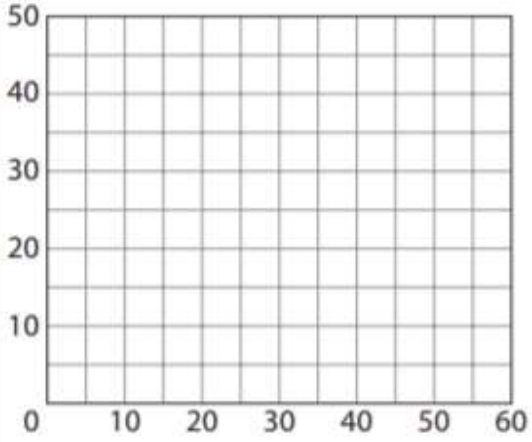
_____ ÷ _____ = _____



Area of a rectangle: 675 square units

Side: 15 units Side: _____ units

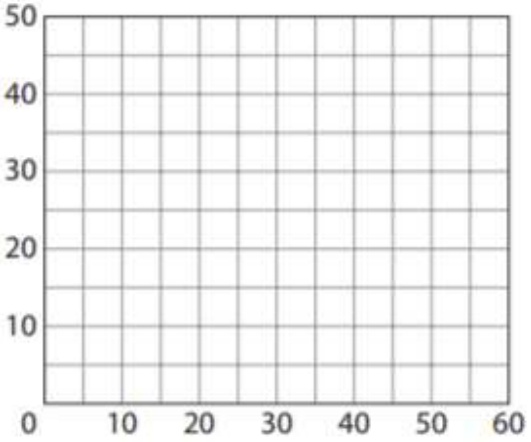
_____ ÷ _____ = _____



Area of a rectangle: 3,000 square units

Side: 60 units Side: _____ units

_____ ÷ _____ = _____



Center Activity 5.10 ★★

Patterns of Zeros

What You Need

- 10 game markers of one color
- 10 game markers of another color
- number cube (1–6)
- Game Board

Check Understanding

Tell the number of zeros in the product and quotient below. Explain your reasoning.

9×10^2

$50{,}000 \div 10^3$

What You Do

1. Take turns. Toss the number cube. Read the clue next to that number.
2. Find an expression on the **Game Board** with a product or quotient that matches the clue.
3. Write the product or quotient. Your partner checks your work.
4. If you are correct, place your game marker on the expression and score 1 point. If you are incorrect, your turn ends.
5. If no expression matches your clue, roll again. If no expression matches your second clue, your turn ends.
6. The first person to score 5 points wins.

Toss	Clue
1	2 zeros in the product
2	3 zeros in the product
3	decimal point shifts 2 places to the right
4	2 zeros in the quotient
5	decimal point shifts 2 places to the left
6	no zeros in the product or quotient

Go Further!

Choose an expression on the **Game Board.** Write the inverse operation. Compare the two answers. Ask your partner to check your work.

Center Activity 5.10 ★★ Game Board

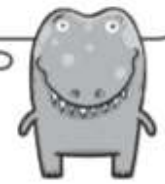
Partner A _____

Partner B _____

Patterns of Zeros

3×10^3	$2{,}000 \div 10^3$	$0.3 \times 10 \times 10$
$4 \times 10 \times 10 \times 10$	$8{,}000 \div 10$	$7 \times 1{,}000$
50×10	$0.5 \div 10^2$	0.002×100
$0.06 \times 10{,}000$	$70 \div 100$	$0.4 \div 10 \times 10$
$3 \div 10^3$	$0.005 \times 10 \times 10 \times 10$	0.06×10^2

When I multiply or divide a number by a power of ten, I decide how many places to move the decimal point to the right or to the left.



Center Activity 5.55 ★★

Fraction Addition: True or False!

What You Need

- Equation Cards

Check Understanding

Is the following equation *true* or *false*? Tell how you know.

$$\frac{3}{7} + \frac{5}{8} = \frac{8}{15}$$

What You Do

1. Shuffle and place the **Equation Cards** facedown in one pile.
2. Take turns. Pick a card and tell if the equation is *true* or *false*. Your partner checks your answer.
3. If you are correct, keep the card. If you are not correct, put the card facedown at the bottom of the pile.
4. Play until there are no cards left in the pile. The winner is the partner who has the most cards at the end of the game.
5. Shuffle the cards. Play again.

Example

$$\frac{5}{6} + \frac{6}{7} = \frac{11}{13}$$

False!

To add two fractions, write the fractions with a common denominator.

$$\frac{5}{6} + \frac{6}{7} = \frac{35}{42} + \frac{36}{42}$$

$$= \frac{71}{42}, \text{ or } 1\frac{29}{42}$$

Go Further!

Play the game as described in **What You Do**. In step 3, if the equation is *false*, explain how you know. Then find the correct sum and write a *true* equation to keep the card.

Fraction Addition: True or False!

$\frac{1}{3}+\frac{3}{4}=\frac{13}{12}$	$\frac{4}{5}+\frac{3}{10}=\frac{7}{15}$	$\frac{3}{4}+\frac{2}{3}=\frac{5}{7}$
$\frac{1}{3}+\frac{3}{7}=\frac{16}{21}$	$\frac{2}{3}+\frac{2}{5}=\frac{2}{8}$	$\frac{5}{8}+\frac{1}{4}=\frac{6}{12}$
$\frac{4}{9}+\frac{1}{6}=\frac{13}{9}$	$\frac{1}{5}+\frac{1}{4}=\frac{9}{20}$	$\frac{5}{12}+\frac{1}{6}=\frac{8}{12}$
$\frac{1}{4}+\frac{5}{8}=\frac{7}{8}$	$\frac{3}{4}+\frac{3}{8}=\frac{3}{12}$	$\frac{3}{4}+\frac{1}{6}=\frac{11}{12}$

Fraction Addition: True or False!

$\frac{4}{5}+\frac{2}{7}=\frac{38}{35}$	$\frac{1}{8}+\frac{1}{6}=\frac{1}{14}$	$\frac{1}{6}+\frac{6}{7}=\frac{43}{42}$
$\frac{1}{5}+\frac{6}{7}=\frac{37}{35}$	$\frac{1}{7}+\frac{1}{5}=\frac{1}{12}$	$\frac{2}{5}+\frac{1}{6}=\frac{3}{11}$
$\frac{5}{6}+\frac{3}{7}=\frac{53}{42}$	$\frac{4}{5}+\frac{1}{6}=\frac{5}{11}$	$\frac{2}{7}+\frac{3}{14}=\frac{5}{21}$

Fraction Subtraction: True or False!

What You Need

- Equation Cards

Check Understanding

Is the following equation *true* or *false*? Tell how you know.

$$\frac{2}{7} - \frac{1}{5} = \frac{1}{2}$$

What You Do

1. Shuffle and place the **Equation Cards** facedown in one pile.
2. Take turns. Pick a card and tell if the equation is *true* or *false*. Your partner checks your answer.
3. If you are correct, keep the card. If you are not correct, put the card facedown at the bottom of the pile.
4. Play until there are no cards left in the pile. The winner is the partner who has the most cards at the end of the game.
5. Shuffle the cards. Play again.

Example

$$\frac{5}{8} - \frac{1}{3} = \frac{4}{5}$$

False!

To subtract two fractions, write the fractions with a common denominator.

$$\frac{5}{8} - \frac{1}{3} = \frac{15}{24} - \frac{8}{24}$$

$$= \frac{7}{24}$$

Go Further!

Play the game as described in **What You Do**. In step 3, if the equation is *false*, explain how you know. Then find the correct difference and write a *true* equation to keep the card.

Fraction Subtraction: True or False!

$\frac{1}{3} - \frac{1}{5} = \frac{1}{2}$	$\frac{3}{4} - \frac{1}{3} = \frac{5}{12}$	$\frac{3}{7} - \frac{1}{3} = \frac{2}{4}$
$\frac{5}{12} - \frac{1}{4} = \frac{4}{8}$	$\frac{3}{4} - \frac{1}{8} = \frac{2}{8}$	$\frac{2}{3} - \frac{4}{7} = \frac{2}{21}$
$\frac{5}{9} - \frac{2}{3} = \frac{3}{6}$	$\frac{7}{10} - \frac{1}{5} = \frac{6}{5}$	$\frac{10}{9} - \frac{1}{3} = \frac{7}{9}$
$\frac{5}{12} - \frac{1}{6} = \frac{4}{8}$	$\frac{3}{4} - \frac{1}{6} = \frac{7}{12}$	$\frac{3}{4} - \frac{5}{8} = \frac{1}{4}$

Fraction Subtraction: True or False!

$\frac{1}{7} - \frac{1}{4} = \frac{1}{3}$	$\frac{1}{7} - \frac{1}{8} = \frac{1}{56}$	$\frac{7}{8} - \frac{3}{4} = \frac{1}{8}$
$\frac{4}{15} - \frac{1}{5} = \frac{3}{10}$	$\frac{6}{7} - \frac{1}{5} = \frac{5}{2}$	$\frac{3}{5} - \frac{1}{2} = \frac{2}{3}$
$\frac{3}{8} - \frac{1}{6} = \frac{5}{24}$	$\frac{3}{7} - \frac{2}{5} = \frac{1}{35}$	$\frac{7}{10} - \frac{3}{15} = \frac{1}{2}$

What decimal represents each number?

1. one and six tenths

   1.6

2. eight and eleven hundredths

   8.11

3. $6 \times 1 + 5 \times \frac{1}{10}$

   6.5

4. thirteen and thirteen thousandths

   13.013

5. $2 \times 10 + 7 \times \frac{1}{10} + 3 \times \frac{1}{100}$

   20.73

6. $4 \times 1 + 1 \times \frac{1}{100} + 9 \times \frac{1}{1{,}000}$

   4.019

7. five hundred twelve thousandths

   0.512

8. $8 \times 100 + 2 \times \frac{1}{10} + 8 \times \frac{1}{1{,}000}$

   800.208

9. $2 \times 1 + 4 \times \frac{1}{100}$

   2.04

10. forty-two and forty-one hundredths

    42.41

11. $7 \times 100 + 2 \times 10 + 3 \times 1 + 6 \times \frac{1}{10}$

    723.6

12. twelve and sixty-eight thousandths

    12.068

13. $3 \times 1{,}000 + 6 \times 100 + 3 \times 10 + 7 \times \frac{1}{10} + 2 \times \frac{1}{100} + 8 \times \frac{1}{1{,}000}$

    3,630.728

14. nine hundred fifty-six and four hundred twenty-seven thousandths

    956.427

15. How was writing decimals for numbers in word form different from numbers in expanded form?

    Answers will vary.
    Possible answer: For numbers in word form, I had to know what digits the words represent. In expanded form, the digits are given.

Write the symbol <, =, or > in each comparison statement.

1. 0.02 > 0.002
2. 0.05 < 0.5
3. 0.74 < 0.84
4. 0.74 > 0.084
5. 1.2 < 1.25
6. 5.130 = 5.13
7. 3.201 > 3.099
8. 0.159 < 1.590
9. 8.269 > 8.268
10. 4.60 > 4.060
11. 302.026 > 300.226
12. 0.237 > 0.223
13. 3.033 < 3.303
14. 9.074 < 9.47
15. 6.129 < 6.19
16. 567.45 > 564.75
17. 78.967 > 78.957
18. 5.346 < 5.4
19. 12.112 < 12.121
20. 26.2 = 26.200
21. 100.32 > 100.232

22. What strategies did you use to solve the problems? Explain.

Answers will vary.
Possible answer: I looked at the greatest place value for which the numbers had different digits. I compared these digits to tell whether the first number was greater or less than the second number.

Estimate. Circle all the problems with products between 3,000 and 9,000. Then find the exact products of only the problems you circled.

1 132 × 34 = **4,488**

2 247 × 15 = **3,705**

3 145 × 23 = **3,335**

4 308 × 12 = **3,696**

5 158 × 41 = **6,478**

6 364 × 32

7 400 × 29

8 254 × 17 = **4,318**

9 187 × 42 = **7,854**

10 216 × 12

11 323 × 18 = **5,814**

12 194 × 26 = **5,044**

13 317 × 14 = **4,438**

14 385 × 31

15 285 × 27 = **7,695**

16 What strategies did you use to solve the problems? Explain.

Answers will vary. Possible answer: In #2, I used the distributive property to find the partial products and then added them to find the product.

Using Area Models and Partial Quotients to Divide

Estimate. Circle all the problems that will have quotients greater than 30. Then find the exact quotients of only the problems you circled.

1. 540 ÷ 12 — 45
2. 798 ÷ 38 — _____
3. 429 ÷ 11 — 39
4. 931 ÷ 19 — 49
5. 925 ÷ 25 — 37
6. 390 ÷ 15 — _____
7. 1,071 ÷ 51 — _____
8. 1,326 ÷ 13 — 102
9. 1,856 ÷ 32 — 58
10. 2,952 ÷ 72 — 41
11. 1,869 ÷ 89 — _____
12. 1,798 ÷ 29 — 62

13. Select a problem you did not circle. Describe two different ways you could use estimation to tell the quotient is not greater than 30.

Answers will vary.
Possible answer: In problem 2, I divided the compatible numbers 800 and 40 to estimate a quotient of 20. A different way would be to multiply the divisor by multiples of 10, resulting in 38 × 10 = 380, 38 × 20 = 760, and 38 × 30 = 1,140. The dividend 798 is less than 1,140, so the quotient is less than 30.

Circle all the problems with sums less than 5.
Then find the exact sums of only the problems you circled.

1. 0.24 + 4.25
   4.49
2. 4.8 + 0.16
   4.96
3. 2.31 + 2.075
   4.385
4. 2.31 + 2.7
5. 0.909 + 4.09
   4.999
6. 3.99 + 1.109
7. 2.675 + 2.325
8. 3.775 + 0.225
   4
9. 2.06 + 2.933
   4.993
10. 2.6 + 2.933
11. 1.809 + 3.091
    4.9
12. 3.01 + 1.991
13. 1.83 + 3.1 + 0.1
14. 0.012 + 3.79 + 1.101
    4.903
15. 2.6 + 2.04 + 0.099
    4.739

16. What strategies did you use to solve the problems?

Answers will vary.
Possible answer: In problem 1, I used place value to find the sum of 4 ones, 4 tenths, and 9 hundredths. In problem 2, I stacked the decimals vertically, aligning the 8 in 4.8 with the 1 in 0.16.

Activity Answer Keys

5.17

★★ **Check Understanding**

53

Recording Sheet

Toss 1: 168 ÷ 14 = 12

Toss 2: 575 ÷ 25 = 23

Toss 3: 952 ÷ 28 = 34

Toss 4: 792 ÷ 12 = 66

Toss 5: 825 ÷ 15 = 55

Toss 6: 768 ÷ 16 = 48

5.18

45 units

Recording Sheet

All rectangles should reflect the given and calculated side lengths.

Area: 1,375 square units, Side: 25 units; **55** units;

1,375 ÷ 25 = 55

Area: 1,400 square units, Side: 40 units; **35** units;

1,400 ÷ 40 = 35

Area: 675 square units, Side: 15 units; **45** units;

675 ÷ 15 = 45

Area: 3,000 square units, Side: 60 units; **50** units;

3,000 ÷ 60 = 50

5.10

Check Understanding

9×100 has two zeros in the product; $50{,}000 \div 10^3$ has 1 zero in the quotient. Sample explanation: When I multiply by 10^2, or 100, I add 2 zeros to the end of the number. Since 9 has no zeros, it becomes 900. When I divide by 10^3, or 1,000, there will be 3 fewer zeros in the quotient, so 50,000 becomes 50.

Game Board

Toss 1: 50×10; $0.06 \times 10{,}000$

Toss 2: 3×10^3; $4 \times 10 \times 10 \times 10$; $7 \times 1{,}000$

Toss 3: $0.3 \times 10 \times 10$; 0.002×100; 0.06×10^2

Toss 4: $8{,}000 \div 10$; $0.5 \div 10^2$; $3 \div 10^3$

Toss 5: $0.5 \div 10^2$; $0.4 \div 10 \times 10$

Toss 6: $70 \div 100$; $2{,}000 \div 10^3$; $0.005 \times 10 \times 10 \times 10$

5.55

Check Understanding

False; Possible explanation:
You cannot find the sum of two fractions by adding numerators and adding denominators.

Activity Notes

Students will practice adding fractions with different denominators. Students should understand that to add two fractions, the fractions must be written with a common denominator. They should recognize that the equations in which the denominator of the sum is equal to the sum of the two denominators are false.

5.56

Check Understanding

False; Possible explanation:
You cannot find the difference of two fractions by subtracting numerators and subtracting denominators.

Activity Notes

Students will practice subtracting fractions with different denominators. Students should understand that to subtract two fractions, the fractions must be written with a common denominator. They should recognize that the equations in which the denominator of the difference is equal to the difference of the two denominators are false.